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| APPLICATION NO.                     | FILING DATE                | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO.     | CONFIRMATION NO |  |  |
|-------------------------------------|----------------------------|----------------------|-------------------------|-----------------|--|--|
| 09/760,614                          | 01/16/2001                 | Freddie Lin          | 2008.004                | 4897            |  |  |
| 1054 75                             | 590 07/12/2005             |                      | EXAM                    | EXAMINER        |  |  |
| LEONARD TACHNER, A PROFESSIONAL LAW |                            |                      | DUONG, 1                | DUONG, THOMAS   |  |  |
| CORPORATIO                          | N<br>RK CIRCLE, SUITE 38-E |                      | ART UNIT                | PAPER NUMBER    |  |  |
| IRVINE, CA                          | •                          |                      | 2145                    |                 |  |  |
| •                                   |                            |                      | DATE MAILED: 07/12/200: | 05              |  |  |

Please find below and/or attached an Office communication concerning this application or proceeding.

|  |   | Application   | No   | Applicant(s)  | $\neg$ |  |  |  |
|--|---|---|--|---|--------|--|--|--|
| )  |   |   | ,,,,,  |   |        |  |  |  |
| Office Action Summary  |   | 09/760,614  |  | LIN ET AL.  |        |  |  |  |
|  | moorivation valimaly  | Examiner  | .na  | Art Unit  |        |  |  |  |
| The  | MAILING DATE of this communicat   | Thomas Duc  |  |   |        |  |  |  |
| Period for Reply   |   |   |  |   |        |  |  |  |
| THE MAILII  - Extensions of after SIX (6) If  - If the period fi  - If NO period fi  - Failure to rep  Any reply rec   | NED STATUTORY PERIOD FOR NG DATE OF THIS COMMUNICA for time may be available under the provisions of 37 MONTHS from the mailing date of this communic or reply specified above is less than thirty (30) date for reply is specified above, the maximum statuto by within the set or extended period for reply will, eived by the Office later than three months after the term adjustment. See 37 CFR 1.704(b). | TION. 7 CFR 1.136(a). In no event, sation. ays, a reply within the statutory period will apply and will e by statute, cause the applica | however, may a reply be tim<br>y minimum of thirty (30) day<br>xpire SIX (6) MONTHS from<br>tion to become ABANDONE! | nely filed<br>s will be considered timely.<br>the mailing date of this communication.<br>D (35 U.S.C. § 133). |        |  |  |  |
| Status   | •   |   |  |   |        |  |  |  |
| 1)⊠ Resp   | onsive to communication(s) filed o  | on <u>11 May 2005</u> .   |  |   |        |  |  |  |
| 2a)⊠ This  | This action is <b>FINAL</b> . 2b) ☐ This action is non-final.   |   |  |   |        |  |  |  |
|  | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.   |   |  |   |        |  |  |  |
| Disposition of   | Claims  |   |  |   |        |  |  |  |
| 4)⊠ Claim  | n(s) <u>1-28</u> is/are pending in the app  | lication.   | -  |   |        |  |  |  |
| 4a) O  | f the above claim(s) is/are v   | withdrawn from cons   | ideration.   |   |        |  |  |  |
| 5) Claim(s) is/are allowed.  |   |   |  |   |        |  |  |  |
| ·  | n(s) <u>1-28</u> is/are rejected.   |   |  |   |        |  |  |  |
| • —  | n(s) is/are objected to.  |   |  |   |        |  |  |  |
| 8) Claim(s) are subject to restriction and/or election requirement.  |   |   |  |   |        |  |  |  |
| Application Pa   | apers   |   |  |   |        |  |  |  |
| 9) <u></u> The s   | pecification is objected to by the E  | xaminer.  |  |   |        |  |  |  |
| 10)☐ The drawing(s) filed on is/are: a)☐ accepted or b)☐ objected to by the Examiner.  |   |   |  |   |        |  |  |  |
| Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  |   |   |  |   |        |  |  |  |
| Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152. |   |   |  |   |        |  |  |  |
| 11)∐ The o   | ath or declaration is objected to by  | y the Examiner. Note  | the attached Office  | e Action or form P1O-152.   |        |  |  |  |
| Priority under   | 35 U.S.C. § 119   |   |  |   |        |  |  |  |
| 12)∐ Ackno   | owledgment is made of a claim for   | foreign priority unde   | r 35 U.S.C. § 119(a  | )-(d) or (f).   |        |  |  |  |
| a) ☐ All b) ☐ Some * c) ☐ None of:   |   |   |  |   |        |  |  |  |
| 1. Certified copies of the priority documents have been received.  |   |   |  |   |        |  |  |  |
| 2. Certified copies of the priority documents have been received in Application No   |   |   |  |   |        |  |  |  |
| 3. Copies of the certified copies of the priority documents have been received in this National Stage  |   |   |  |   |        |  |  |  |
|  | application from the International  |   |  | od  |        |  |  |  |
| r See th   | e attached detailed Office action f   | or a list of the certific   | a copies not receive   | eu.   |        |  |  |  |
| a a  |   |   |  |   |        |  |  |  |
| Attachment(s)  | •   |   |  |   |        |  |  |  |
|  | eferences Cited (PTO-892)   | 4   | ) Interview Summary  | y (PTO-413)   |        |  |  |  |
| 2) Notice of Dr  | aftsperson's Patent Drawing Review (PTO   | -948)   | Paper No(s)/Mail D   | Date  |        |  |  |  |
| Paper No(s)  | Disclosure Statement(s) (PTO-1449 or PT   | 0,00,00,  | i) Notice of Informal F  | Patent Application (PTO-152)  |        |  |  |  |
| U.S. Patent and Trademark<br>PTOL-326 (Rev. 1-0  |   | Office Action Summary   | P  | art of Paper No./Mail Date 07072005   | ا ۵    |  |  |  |

Art Unit: 2145

## **DETAILED ACTION**

# Request for Continued Examination

- 1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.
- 2. Amendment received May 11, 2005 has been entered into record. *Claims 1-28* remain pending.

## Response to Amendment

3. This office action is in response to the applicants Amendment filed on May 11, 2005.

Applicant did not amend *any claims*. *Claims 1-28* are presented for further consideration and examination.

## Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

Art Unit: 2145

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

- Claims 1-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Huang et al.
   (US006618397B1).
- 6. With regard to *claims 1-2 and 15-16*, Huang discloses,
  - receiving packets of data; (Huang, col.3, lines 60-63)
     Huang teaches that multiple packets are received and queued internally in a node before being grouped and transmitted.
  - combining the packets of data based on packet header destination information to form a first combined file; (Huang, col.3, lines 47-59; col.4, lines 18-26; col.8, lines 26-27; module 556, fig.5B)
     Huang teaches that packets are grouped according to a common destination and dynamically combined the packets into one encapsulated packet.
  - compressing the first combined file to form a first compressed file; and (Huang, col.4, lines 28-31; col.8, lines 31-33; module 558, fig.5B)
     Huang teaches that the combined encapsulated packet can be compressed to increase the communication performance.
  - transmitting the first compressed file based upon any one of a plurality of
    different protocols in different network layers. (Huang, col.3, lines 47-59; col.4,
    lines 1-5, lines 33-34; col.8, lines 39-42; module 562, fig.5B)
     Huang teaches of a "system and method for group packet encapsulation and
    (optionally) compression ... [that would] increase packet transmission
    performance between two gateways or host computers by reducing data-link

Art Unit: 2145

layer framing overhead, reducing packet routing overhead in gateways, reducing packet header overhead" (Huang, col.3, lines 47-52). The Huang invention clearly applies to a group of data packets, which, as well known in the networking art, can pertain to any one of the 7 OSI networking layers.

Huang teaches of a "system and method for group packet encapsulation and (optionally) compression ... [that would] increase packet transmission performance between two gateways or host computers by reducing data-link layer framing overhead, reducing packet routing overhead in gateways, reducing packet header overhead" (Huang, col.3, lines 47-52). The Huang invention clearly applies to a group of data packets, which, as well known in the networking art, can pertain to any one of the 7 OSI networking layers. Furthermore, Huang specifically states that the "invention, which, as an example, can be used with IP packets" (Huang, col.3, lines 56-57). In other words, Huang focused on the IP layer in the disclosure as an example and not as a limiting factor of the invention. In addition, the Examiner cannot find anywhere in the current application's disclosure the reference to the ability of applying the claimed invention to "any one or combination of the 7 layers" as the Applicants have remarked.

Huang teaches that "in accordance with the encapsulation protocol, two communication nodes (e.g., a Node-X and a Node-Y), ... [which] could be a gateway, host computer or some other known communication device" (Huang, col.4, lines 1-5). Thus, Huang anticipates the invention to be used with 'known communication devices', which certainly may include 'routers, switches, gateways, etc.' as the Applicants have remarked. Furthermore, according to Huang, "the system and method increase packet transmission performance between two

Art Unit: 2145

gateways or host computers by reducing data-link layer framing overhead, reducing packet routing overhead in gateways, reducing packet header overhead, and increasing loss-less data compression ratio" (Huang, col.3, lines 48-53). Hence, Huang anticipates the invention to operate in the data-link layer in addition to the network layer.

- 7. With regard to *claims 3-4 and 17-18*, Huang discloses,
  - wherein the packets combined to form the first combined file have headers
    addressed to the same first subnetwork, the first subnetwork comprising a
    plurality of users. (Huang, col.4, lines 26-33; col.5, line 61 col.6, line 14; col.8,
    lines 33-36; module 560, fig.5B)
  - further comprising inserting headers addressed to the first subnetwork on the packets of the repacketized first compressed file. (Huang, col.4, lines 26-33; col.5, line 61 col.6, line 14; col.8, lines 33-36; module 560, fig.5B)
- 8. With regard to *claims 5-8 and 19-22*, Huang discloses,
  - selecting a second group of packets of data with headers addressed to a second subnetwork; combining the packets of data based on packet header destination information to form a first combined file; (Huang, col.3, lines 47-59; col.4, lines 18-26; col.8, lines 26-27; module 556, fig.5B)
     Huang teaches that packets are grouped according to a common destination and dynamically combined the packets into one encapsulated packet.
  - compressing the second combined file to form a second compressed file; and (Huang, col.4, lines 28-31; col.8, lines 31-33; module 558, fig.5B)

Art Unit: 2145

Huang teaches that the combined encapsulated packet can be compressed to increase the communication performance.

transmitting the second compressed file. (Huang, col.4, lines 33-34; col.8, lines 39-42; module 562, fig.5B)
 It is obvious to one of ordinary skill in the art that the method as rejected above according to Huang can be reapplied to a different common destination address to form a second group of encapsulated packets and compressed headers.

- 9. With regard to *claims 9-10 and 23-24*, Huang discloses,
  - wherein the receiving step receives the packets of data from a third subnetwork.
     (Huang, col.3, lines 60-63)
     Huang teaches that multiple packets are received and queued internally in a node before being grouped and transmitted.
- 10. With regard to *claims 11-14 and 25-28*, Huang discloses,
  - receiving packets of data; (Huang, col.3, lines 60-63)
     Huang teaches that multiple packets are received and queued internally in a node before being grouped and transmitted.
  - combining and compressing the packets of data destined for a first subnetwork
    according to a first compression algorithm to create a first compressed file; and
    (Huang, col.3, lines 47-59; col.4, lines 18-26, lines 28-31; col.8, lines 26-27, lines
    31-33; module 556 and 558, fig.5B)

Huang teaches that packets are grouped according to a common destination and dynamically combined the packets into one encapsulated packet. Huang

Art Unit: 2145

teaches that the combined encapsulated packet can be compressed to increase the communication performance.

combining and compressing the packets of data destined for a second subnetwork according to a second compression algorithm to create a second compressed file, each said compressing step being based upon any one of a plurality of different protocols in different network layers. (Huang, col.3, lines 47-59; col.4, lines 18-26, lines 28-31; col.8, lines 26-27, lines 31-33; module 556 and 558, fig.5B)

Huang teaches of a "system and method for group packet encapsulation and (optionally) compression ... [that would] increase packet transmission performance between two gateways or host computers by reducing data-link layer framing overhead, reducing packet routing overhead in gateways, reducing packet header overhead" (Huang, col.3, lines 47-52). The Huang invention clearly applies to a group of data packets, which, as well known in the networking art, can pertain to any one of the 7 OSI networking layers.

Huang teaches of a "system and method for group packet encapsulation and (optionally) compression ... [that would] increase packet transmission performance between two gateways or host computers by reducing data-link layer framing overhead, reducing packet routing overhead in gateways, reducing packet header overhead" (Huang, col.3, lines 47-52). The Huang invention clearly applies to a group of data packets, which, as well known in the networking art, can pertain to any one of the 7 OSI networking layers. Furthermore, Huang specifically states that the "invention, which, as an example, can be used with IP packets" (Huang, col.3, lines 56-57). In other words, Huang focused on the IP layer in the disclosure as an

Art Unit: 2145

example and not as a limiting factor of the invention. In addition, the Examiner cannot find anywhere in the current application's disclosure the reference to the ability of applying the claimed invention to "any one or combination of the 7 layers" as the Applicants have remarked. It is obvious to one of ordinary skill in the art that the method as rejected above according to Huang can be reapplied to a different common destination address to form a second group of encapsulated packets and compressed headers.

# Response to Argument

- 11. The Applicants' arguments and amendments filed on May 11, 2005 have been fully considered, but they are not persuasive.
- 12. With regard to *claims 1, 11, 15 and 26*, the Applicants point out that:
  - In other words, the related "protocol associations", "address maps", or any other required network protocol functions are addressed by another communications device, not by the Applicant's invention. This implies that the Applicant's invention can work with any ISO-standard compliant communication devices (i.e., routers, switches, gateways, etc.) regardless of their layers of protocol. As noted in the present application at page 6, lines 15-17, the invention will work with "ATM switches, Ethernet switches, IP switches and any other switches" which are switches for different ISO layers. On the other hand all methods taught by Huang et al are specific to the IP layer and there is no suggestion that the same methods can be directly applied to other ISO layers.

Art Unit: 2145

However, the Examiner finds that the Applicants' arguments are not persuasive and maintains that Huang discloses,

- receiving packets of data; (Huang, col.3, lines 60-63)
   Huang teaches that multiple packets are received and queued internally in a node before being grouped and transmitted.
- combining the packets of data based on packet header destination information to form a first combined file; (Huang, col.3, lines 47-59; col.4, lines 18-26; col.8, lines 26-27; module 556, fig.5B)
   Huang teaches that packets are grouped according to a common destination and dynamically combined the packets into one encapsulated packet.
- compressing the first combined file to form a first compressed file; and (Huang, col.4, lines 28-31; col.8, lines 31-33; module 558, fig.5B)
   Huang teaches that the combined encapsulated packet can be compressed to increase the communication performance.
- transmitting the first compressed file based upon any one of a plurality of different protocols in different network layers. (Huang, col.3, lines 47-59; col.4, lines 33-34; col.8, lines 39-42; module 562, fig.5B)
   Huang teaches of a "system and method for group packet encapsulation and (optionally) compression ... [that would] increase packet transmission performance between two gateways or host computers by reducing data-link layer framing overhead, reducing packet routing overhead in gateways, reducing packet header overhead" (Huang, col.3, lines 47-52). The Huang invention clearly applies to a group of data packets, which, as well known in the networking art, can pertain to any one of the 7 OSI networking layers.

Art Unit: 2145

Huang teaches of a "system and method for group packet encapsulation and (optionally) compression ... [that would] increase packet transmission performance between two gateways or host computers by reducing data-link layer framing overhead, reducing packet routing overhead in gateways, reducing packet header overhead" (Huang, col.3, lines 47-52). The Huang invention clearly applies to a group of data packets, which, as well known in the networking art, can pertain to any one of the 7 OSI networking layers. Furthermore, Huang specifically states that the "invention, which, as an example, can be used with IP packets" (Huang, col.3, lines 56-57). In other words, Huang focused on the IP layer in the disclosure as an example and not as a limiting factor of the invention. In addition, the Examiner cannot find anywhere in the current application's disclosure the reference to the ability of applying the claimed invention to "any one or combination of the 7 layers" as the Applicants have remarked.

Huang teaches that "in accordance with the encapsulation protocol, two communication nodes (e.g., a Node-X and a Node-Y), ... [which] could be a gateway, host computer or some other known communication device" (Huang, col.4, lines 1-5). Thus, Huang anticipates the invention to be used with 'known communication devices', which certainly may include 'routers, switches, gateways, etc.' as the Applicants have remarked. Furthermore, according to Huang, "the system and method increase packet transmission performance between two gateways or host computers by reducing data-link layer framing overhead, reducing packet routing overhead in gateways, reducing packet header overhead, and increasing loss-less data compression ratio" (Huang, col.3, lines 48-53). Hence,

Huang anticipates the invention to operate in the data-link layer in addition to the network layer.

Therefore, the Applicants still failed to clearly disclose the novelty of the invention and identify specific limitation, which would define patentable distinction over prior art.

#### Conclusion

- 13. THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
  - A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.
- 14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas Duong whose telephone number is 571/272-3911. The examiner can normally be reached on M-F 7:30AM 4:00PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Valencia Martin-Wallace can be reached on 571/272-6159. The fax phone numbers for the organization where this application or proceeding is assigned are 703/872-9306 for regular

Art Unit: 2145

communications and 703/872-9306 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571/272-2100.

Thomas Duong (AU2145)

July 7, 2005

DAVID WILEY SUPERVISORY PATENT EXAMINER TECHNOLOGY CENTER 2100